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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/531,531	03/21/2000	Yuichi Shirota	257718	7092

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EXAMINER
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FORD, JOHN K

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 08/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/531,531

Applicant(s)

Shiota et al.

Examiner

FORD

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 3-18-02
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_

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Applicant's preliminary amendment of March 18, 2002 has been entered and carefully considered.

As a preliminary matter new claims designated 44-46 in applicant's amendment have been renumbered as claims 40-42 (preserving their dependency) pursuant to Rule 126. In all future communications please refer to them by their renumbered numerology. There were only 39 claims in the file at the time the preliminary amendment was filed hence the need to renumber pursuant to Rule 126. If applicant disagrees, then the Examiner's file must be incomplete.

An action on claims 6, 7, 9-12, 15-20, 22, 23 and 40-42 follows.

Applicant has confirmed that JP-U-61-753056 is complete with four drawing Figures.

Applicant has changed claim 6 in a way that moots the previous rejection.

Claims 6, 7, 9-12, 15-20, 22 and 23 are ~~would be allowable if rewritten to overcome the~~  
~~rejected~~ under 35 U.S.C. 112, second paragraph, ~~set forth in this Office action and to include~~  
~~all of the limitations of the base claim and any intervening claims.~~

In claim 6, line 7, applicant has added the additional limitation "disposed in said case to have a lower space in said case under a bottom surface of said cooling heat exchanger to be slightly inclined..". It is not clear to the Examiner whether applicant is trying to claim that: 1) the bottom surface of the cooling heat exchanger is "slightly inclined" or 2) whether the "space" between the bottom surface of the cooling heat exchanger and the case is inclined or 3) whether the bottom of the case is inclined. If it is possibility 2) that applicant is attempting to claim, the Examiner does not believe that a "space" lacking any structure of its own (by definition it is a

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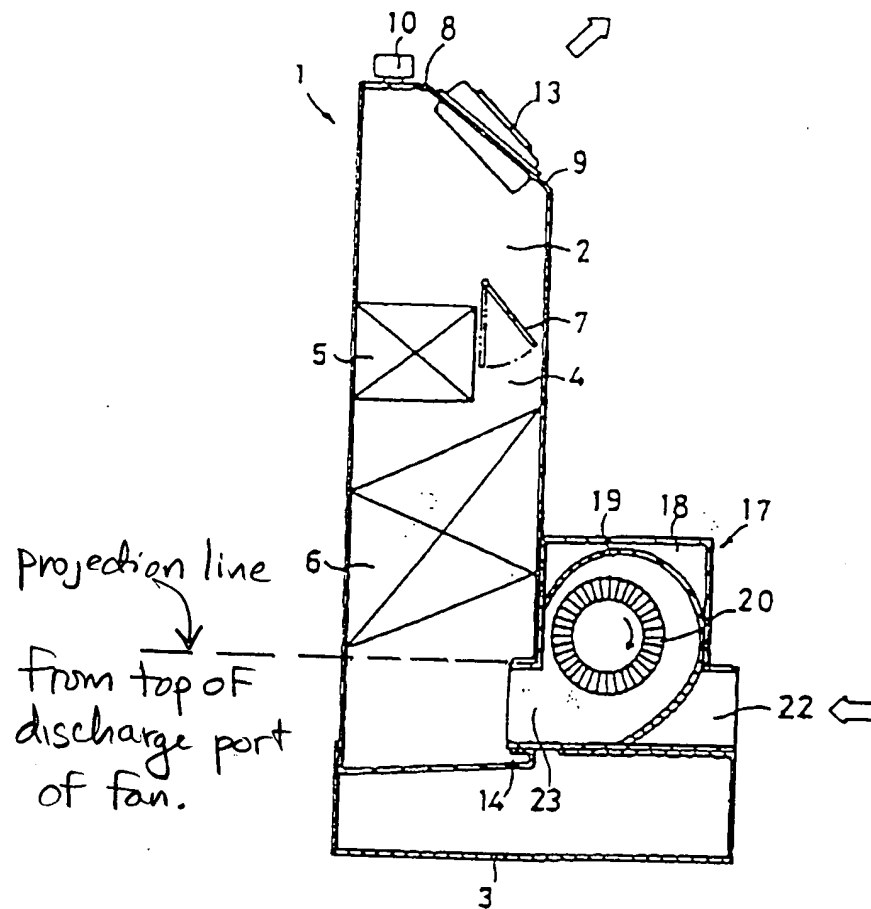
void) is properly claimed to have an "orientation". Generally structural components (e.g. an evaporator or casing portion) have an orientation, not a "space". Please clarify the claim so that the reader is sure what structure is being claimed as inclined.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

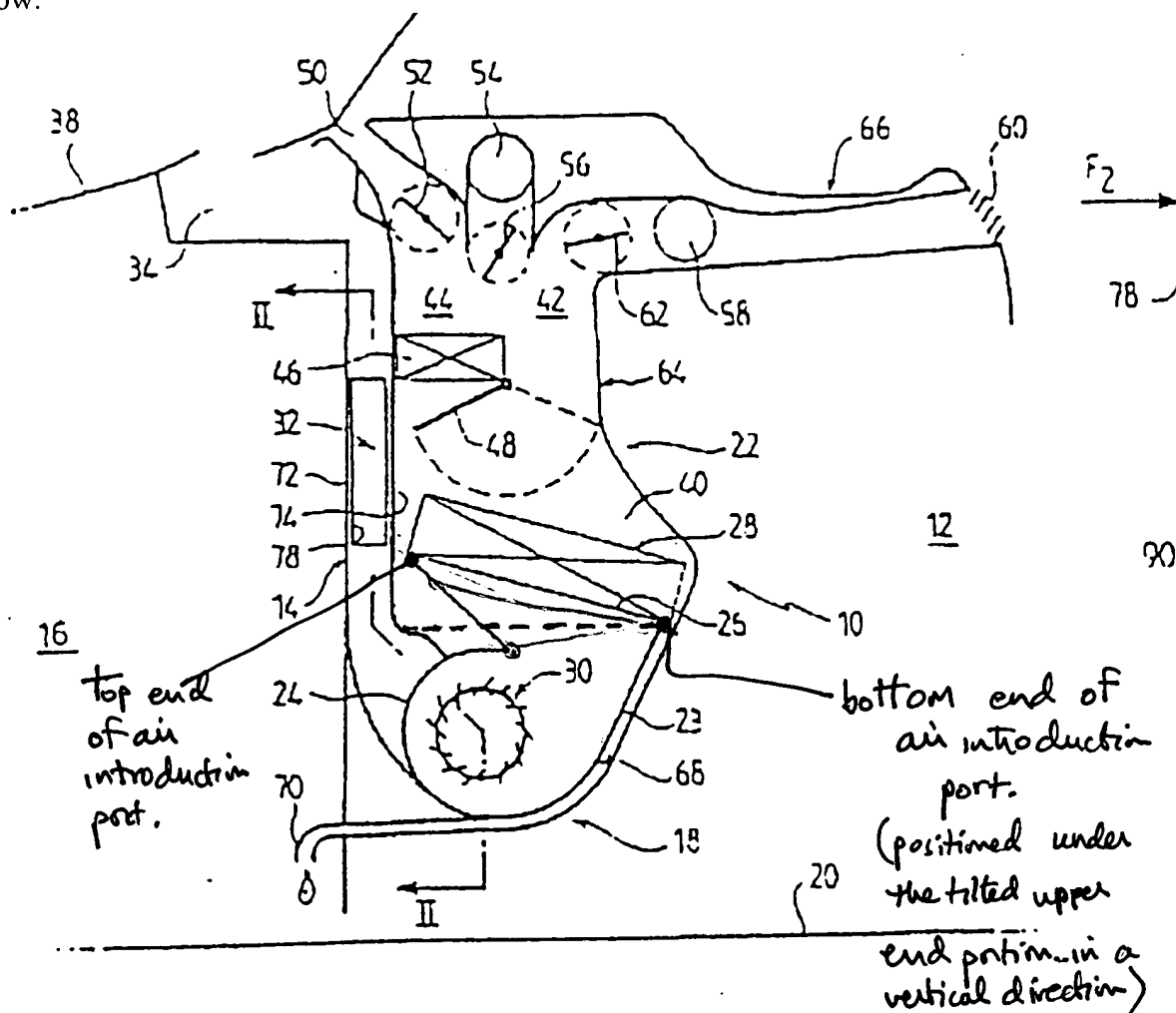
Claims 6, 7, 9-12, 15-20, 22, 23 and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of JA 5-3365 (Fig. 5), JA 6-156049 and any one of Stech, JP '388 or Newton.

JA '365 (Fig. 5) shows the essential subject matter of claim 6 with the exception of the details of the fins on the evaporator (the evaporator is shown schematically). Arguably, elements 13 may not be "mode members" as called forth in the claims, but the translation submitted is so abbreviated these elements are not even mentioned. In applicant's response (paragraph bridging pages 13-14) translations are discussed but have not been provided. Please provide them in response to this action. As well, the top of the fan discharge (23) appears to be slightly below the bottom of the lowest point an evaporator (6) when a horizontal line is drawn across the reference as shown below:



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JA '049 also shows the essential subject matter of claim 6 however it too lacks a showing of fins on the evaporator 28 but does show mode control doors 52, 56 and 62. It appears to show the top end and bottom end of the air introduction port to be positioned as claimed. See the illustration below:



To have replaced elements 13 of JA '365 with the mode control doors of JA '049 to distribute air to vent, foot and defrost outlets to improve occupant comfort would have been obvious to one of ordinary skill. Alternatively, to have off-set blower 30 of JA '049 to one side of the evaporator 28 in the manner taught by Figure 5 of JA '365 to permit a reduction in height of the unit for mounting in smaller vehicle spaces would have been obvious to one of ordinary skill.

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To the extent that is necessary to meet the claim limitation that the bottom end of the air introduction port is vertically below the top end (and not<sup>†</sup> horizontally spaced therefrom as implied, but not explicitly claimed in claim 6) Each of Stech, JP 2-17388 (Fig. 4) or Newton teach this configuration.

To have moved the evaporator 6 of JA '365 downward towards the bottom of the fan plenum so that the lowest point on the evaporator was below ~~the highest point on the evaporator~~ ~~was below the highest point on the evaporator was below~~ the highest point on the fan discharge aperture (23) to advantageously reduce the overall height of the unit to permit it to fit in smaller vehicles would have been obvious. This orientation of fan to evaporator is fairly taught by any one of evaporator is fairly taught by any one of Stech, JP '388 (Fig. 4) or Newton.

Claims 6, 7, 9-12, 15-20, 22, 23 and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 6 above, and further in view of Nagao or JA 63-38016.

To have used an evaporator in either the so modified JA '365 or JA '049 with serpentine fins between the tubes would have been obvious in view of either Nagao (element 2) or JA '016 (Figure 1, evaporator 5).

Regarding the condensate drawn features these are apparently shown in JA '049, but again the translation is so abbreviated one cannot be sure.

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Serpentine fins on the air-side of evaporators are extremely conventional items that Denso has been manufacturing for decades. It is not seen why their use here rises to the level of patentable subject matter.

Regarding claim 9 Nagao teaches this orientation of the tubes.

Claims 6, 7, 9-12, 15-20, 22, 23 and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 6 above, and further in view of Gebhardt or Marsteller or Brandecker or Bates or Mullin et al.

To have oriented the blower in the prior art JA 5-3365 to have a mouth which has an upper portion of a discharge opening above the bottom of the evaporator and then a tapering passage to convey the flow to the bottom surface of the evaporator would have been obvious in view of the teachings of Gebhardt or Brandecker, *to further reduce height of the unit.*

Each of these references teaches orienting the tubes parallel to the direction of air blow from below the heat exchanger. Orientation in this manner would have been obvious in view of the repeated teachings in the prior art for purposes of improving flow and heat exchange.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F. 3d 1046, 29 USPQ 2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F. 2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F. 2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F. 2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321 © may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).



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Claims 6, 7, 9-12, 15-20, 22, 23 and 40-42 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 5,755,107 in view of the prior art applied to claims 6, 7, 9-12, 15-20, 22, 23 and 40-42 of this office action. The rejections formulated above are incorporated here by reference. To the extent that there is anything claimed here which is not claimed in claims 1-7 of USP 5,755,107 it would have been obvious to have used the prior art relied upon in the previous rejections, for the reasons stated there, to arrive at the subject matter claimed here.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F. 3d 1046, 29 USPQ 2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F. 2d 887, 225 UDPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F. 2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F. 2d 528, 163 UPSQ 644 (CCPA 1969).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 6, 7, 9-12, 15-20, 23, 23 and 40-42 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,044,656 in view of the prior art applied to claims 6, 7, 9-12, 15-20, 22, 23 and 40-42 of this office action. The rejections formulated above are incorporated here by reference. To the extent that there is anything claimed here which is not claimed in claims 1-16 of USP 6,044,656 it would have been obvious to have used the prior art relied upon in the previous rejections, for the reasons stated there, to arrive at the subject matter claimed here.

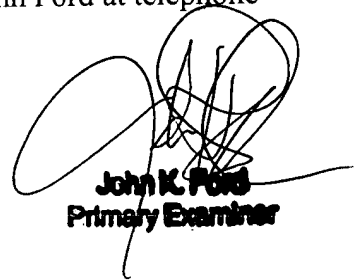
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Applicant's comments with respect to Goodman are convincing, however the Examiner is still of the opinion that the obviousness-type double patenting rejections are valid on the traditional obviousness reasoning set forth in the two double patenting rejections above.

Any inquiry concerning this communication should be directed to John Ford at telephone number 308-2636.

J. Ford

July 22, 2002



**John K. Ford**  
**Primary Examiner**